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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE  
BOARD OF PATENT APPEALS AND INTERFERENCES**

In re:

U.S. Application of:

Eiichi YOSHIDA

For:

CONTROL DEVICE AND CONTROL METHOD  
FOR NETWORK-CONNECTED DEVICE

Confirmation No.:

7557

U.S. Serial No.:

09/151,321

Filed:

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Examiner:

Douglas Q. Tran

**RECEIVED**

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**Technology Center 2600**

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Assistant Director

for Patents

Washington, D.C. 20231

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: **BOX AF**, Assistant Commissioner for Patents, Washington, D.C. 20231, on

**January 10, 2003**

Date of Deposit

**Kathy E. Needleman**

Name of Applicant, Assignee, or Registered Representative

*Kathy Needleman*

Signature

**January 10, 2003**

Date of Signature

**BRIEF FOR APPELLANT**

This is an appeal from the Final Office Action, dated May 8, 2002, rejecting Claims 1-16 and 18-20 in the present Application. A Notice of Appeal was filed November 7, 2002.

A Petition For Extension of Time, to extend the response period for the Examiner's Action, dated May 8, 2002, for two additional months to February 7, 2003, is being filed concurrently.

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This brief is submitted in triplicate.

This brief is accompanied by a Response Transmittal and Fee Authorization, authorizing the requisite fee of \$320.00 as set forth in § 1.17(c). In the event that the Response Transmittal and Fee Authorization is not enclosed, please charge any required fee (other than an issue fee) during the pendency of this Application to Sidley Austin Brown & Wood Deposit Account No. 18-1260. Please credit any excess payment to the same account.

**REAL PARTY IN INTEREST (37 C.F.R. § 1.192(C)(1))**

The real party in interest in the present Application is Minolta Co., Ltd., a corporation of Japan, having an office at 3-91 Daisennishi-Machi, Sakai-Shi, Osaka 590-8551, Japan.

**RELATED APPEALS AND INTERFERENCES (37 C.F.R. § 1.192(C)(2))**

To the knowledge of the undersigned, there exists no related appeals or declared interferences that directly affect, or will be directly affected by, the present Application.

**STATUS OF CLAIMS 37 C.F.R. § 1.192(C)(3)**

The Application was originally filed with seventeen (17) claims. A Final Office Action dated July 18, 2001, rejected claims 1-10 in view of U.S. Patent No. 5,768,483 to Maniwa et al. (hereinafter "Maniwa") and claims 11-17 over Maniwa and U.S. Patent No. 5,995,718 to Hiraie et al. A CPA was filed on October 17, 2001 along with a Preliminary Amendment amending claims 1-4, 6, 7, 9, and 11-16, adding claims 18-20, and cancelling claim 17.

A Final Office Action dated May 8, 2002, rejected Claims 11-16, 19, and 20 under 35 U.S.C. §112, first paragraph; Claims 1 and 6-10 under 35 U.S.C. §103(a) over the combination of U.S. Patent No. 5,467,434 to Hower, Jr. et al (hereinafter "Hower"), U.S.

Patent No. 6,088,120 to Shibusawa et al. (hereinafter "Shibusawa"), and to Maniwa; Claims 2-5 and 18 under 35 U.S.C. §103(a) over the combination of Hower, Shibusawa, and Applicant's admitted prior art; Claims 11, 15, 16, 19, and 20 under 35 U.S.C. §103(a) over the combination of Hower and Maniwa; and Claims 12-14 under 35 U.S.C. §103(a) over the combination of Hower, Maniwa, and Applicant's admitted prior art.

The status of the claims is therefore believed to be as follows:

Allowed claims:	None
Claims objected to:	None
Claims rejected:	1-16 and 18-20
Claims withdrawn:	17

Appellant hereby appeals the Examiner's final rejection of Claims 1-16 and 18-20.

#### **STATUS OF AMENDMENTS (37 C.F.R. § 1.192(C)(4))**

A Preliminary Amendment was filed along with the CPA on October 17, 2001. In that Preliminary Amendment, claims 1-4, 6, 7, 9, and 11-16 were amended. Claim 17 was cancelled and claims 18-20 were added.

An Amendment was filed on February 4, 2002. In that Amendment, claims 1, 11, and 16 were amended.

A response under 37 C.F.R. § 1.116 was filed by Appellant on August 8, 2002. In that response, no amendments were made to the claims.

A Communication in Response to Examiner's Interview of October 10, 2002 was filed on October 22, 2002. In that communication, no amendments were made to the claims.

Appealed Claims 1-16 and 18-20, as amended, are set forth in Appendix A (attached hereto) pursuant to 37 C.F.R. § 1.192(c)(9).

### **SUMMARY OF INVENTION (37 C.F.R. § 1.192(C)(5))**

The present invention is directed to: a network system (page 9, lines 18-20); an image forming apparatus (i.e., a printer) (page 9, lines 20-21 and illustrated in Fig. 1) connected with a job management device (a printer controller 40 illustrated in Figs. 2 and 3 and discussed on page 12, line 21 through page 13, line 2) through a network (N); and a device (job registration server 6 illustrated in Fig. 1 and discussed on page 10, lines 3-6 and page 18, lines 14-16) for selecting a network-connected image forming apparatus from a plurality of network-connected image forming apparatuses and registering the input job in the selected network-connected image forming apparatus.

Figure 1 illustrates the relationship between the computers 1, 2 which submit input print job requests through network N for printing by one of the plurality of network-connected image forming devices (printers). The job registration server 6 makes the determination as to which printer the input print job request will be routed. Figure 2 illustrates an exemplary printer having a printing controller 40. The printing controller 40 is illustrated in greater detail in Fig. 3. According to Fig. 3, printing controller 40 comprises an image controller 100, connected to network N, and a printer controller 110, which communicates with the image controller 100. Within the image controller is memory system RAM 104 for storing input data.

As described on page 14, lines 8-20 of the specification and as illustrated in Fig. 4, system RAM 104 contains three separate and distinct working areas. Program working area A stores data required when a program is run; received data area B stores data received over a network; and job data area C stores job data. "Data in received data area B is processed in job units in the order of storage. Received data is stored as page description language data" which "comprises drawing commands required for drawing an

image and control commands which designate sheet selection and the like”. (Page 14, lines 16-18 of the specification).

According to page 18, lines 10-19 of the specification describing that which is illustrated in Fig. 6, “job data” of the input print job and page description language used for printing the input print job are both initially recorded on hard disk 206. The job registration server 6 examines the content of the page description language and ascertains the type of sheet selection to be made in the input print job. The job registration server 6 also ascertains printer status from each of the plurality of network-connected printers and information regarding print jobs previously registered (previously stored and queued print jobs) in each of the plurality of network-connected printers, and “handles processing to select an appropriate printer based on stored jobs and printer status”. (page 18, lines 17-19 of the specification).

When job registration server 6 registers an input print job in a printer, the input print job is registered as individual job data in job data area C of RAM 104 of the printer. The status of the memory of each printer is determined by the CPU 102 based on the job data registered by the job registration server 6 in job data area C of the RAM 104 of each printer. Thus, a determination as to whether to route an input print job to a particular printer is made by the job registration server 6 based on the status of the printer, which is determined based on jobs stored in the printer memory, RAM 104, and **not** the the hard drive memory 206. Once the appropriate printer is selected, the job registration server 6 registers the input print job in RAM 104 of the appropriate printer for printing. (page 14, lines 21-25).

The benefits of the present invention are readily appreciated when viewed in the context of the background problem described in the Application. When a plurality of printers are connected through a network (see Fig. 1), an input job being sent for printing could theoretically be routed by a controller through the network N to any one of the plurality of network-connected printers. If an input job has a specific mode, that is, if the input job requires special handling, (such as: printing on a special paper size, printing from

special stock contained in a manual feed tray, stapling, collating, stopping between print jobs, etc.), the input job must be routed to a printer capable of handling that specific mode. For example, if an input job requires printing from irregular sized paper stock contained in a manual feed tray of the printer, then the input job must be routed to a particular printer which has a manual feed tray print capability and whose manual feed tray contains that particular size paper.

Generally, certain print jobs (i.e., those having a specific mode print request such as requiring printing on special sized paper loaded into the manual feed tray) require special handling such as temporarily stopping the image forming apparatus such that the requisite irregular size paper can be placed in the manual feed tray before each print job is printed. In an image forming apparatus capable of storing multiple jobs, a disadvantage arises in that, when operation is stopped to exchange sheets in the manual feed tray, the execution of stored jobs is subsequently delayed, leading to reduced printer efficiency. (page 2, line 18 – page 3, line 8 of the specification). This delays both specific mode print requests as well as queued regular print requests which do not require special handling. By using an apparatus or the fundamental process underlying an apparatus designed in accordance with the present application, it is possible to achieve efficient printer utilization and speedier printing of regular print jobs, i.e., those print jobs requiring no special treatment or handling by the printer, by routing specific mode print jobs to printers already storing in queue other specific mode print jobs.

According to certain embodiments of the present invention as illustrated in Fig. 8 and described on page 19, line 20 through page 21, line 5, and as further described on page 15, lines 6-25, in order to overcome the above described limitations, if one printer already stores in queue for printing a prior submitted print job having a particular specific mode, e.g., requiring printing on special sized paper loaded into the manual feed tray, such that the printing from that one printer must be interrupted (i.e., the printer stopped) in order for the user to load the proper size paper into the proper tray for printing that stored prior print

job, then, if a later submitted input print job is input that also includes the same specific mode print request as that of the prior stored print job, e.g., requiring printing on special sized paper loaded into the manual feed tray, the system checks the status of each of the plurality of network-connected printers (#2-1 of Fig. 8) and routes the later submitted input print job to a printer which already stores a prior print job having that particular specific mode (e.g., requiring printing on special sized paper loaded into the manual feed tray). (See #2-3 of Fig. 8 and the discussion thereof on page 19, line 20 through page 21, line 25 of the specification).

That is, the newly submitted input print job requiring a specific mode printing will be routed for printing to a printer which already stores a prior print job having the specific mode of the input print job. Thus, because the particular printer to which the newly submitted specific mode input print job is routed already stores a print job requiring stopping of the printing, the printer will already be required to be stopped to insure that the proper size paper as indicated is loaded into the proper feed tray prior to printing the prior stored job having the specific mode as well as stopped for the later submitted input print job.

If more than one of the plurality of network-connected printers stores a prior job having the specific mode of the input job, the controller routes the input job to the printer having the greatest number of specific mode jobs (#2-6 of Fig. 8) if the remaining RAM capacity in the printer is adequate (#2-7). If not adequate, the printer storing the next highest number of stop mode jobs is selected (#2-8), its remaining RAM capacity is checked, and the procedure is repeated until a suitable printer is selected and the input job registered in that printer. If there is no printer storing a stop mode job (No at #2-4), a search is made for a printer not storing a job (a non-operating printer ) (#2-10).

According to page 21, lines 6-20 with reference to Fig. 8, if an input job is then later submitted which does not require a specific mode (No at #2-2), i.e., it requires printing on a regular size paper normally stored in a print tray, the system would route the

later submitted input print job to a printer other than the printer which is already storing an queued specific mode print job (#2-15). If there is only one such printer, the input job is routed in that printer (#2-18). If there are multiple printers not storing a specific mode print job (Yes at #2-17), a search is made for a non-operating printer in which no print job is stored (#2-13). In that case, the printing of the later submitted input print job requiring a regular paper size will be done more quickly and efficiently when queued in a printer that does not require stopping. This is because print jobs requiring the specific mode printing are concentrated in a different printer and other printers are available for the regular input print job requiring a regular paper size. This invention is thus a very efficient resource management tool for printers.

**Issues Presented for Review (37 C.F.R. § 1.192(c)(6))**

Issue No. 1. Claims 11-16, 19, and 20 are formally rejected under 35 U.S.C. §112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is more nearly connected, to make and/or use the invention. However, while no mention was made in the Final Office Action or in any prior Office Action as to a lack of enablement for claim 1, the enablement of claim 1 was discussed in the comments in the Advisory Action dated September 3, 2002. It is therefore assumed that the Examiner also intended to reject claim 1 under 35 U.S.C. §112, first paragraph. Thus, the issue is whether the subject matter of claims 1, 11-16, 19, and 20 as described in the specification is enabling to one skilled in the art.

Issue No. 2. Claims 1 and 6-10 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over the combination of Hower, Shibusawa, and Maniwa. Thus, the issue is whether these references in combination disclose or suggest all of the limitations of the claims so as to establish a *prima facie* case of obviousness.

Issue No. 3. Claims 2-5 and 18 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hower, Shibusawa, and Applicant's admitted prior art.



Thus, the issue is whether these references in combination disclose or suggest all of the limitations of the claims so as to establish a *prima facie* case of obviousness.

Issue No. 4. Claims 11, 15, 16, 19, and 20 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hower and Maniwa. Thus, the issue is whether these references in combination disclose or suggest all of the limitations of the claims so as to establish a *prima facie* case of obviousness.

Issue No. 5. Claims 12-14 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hower, Maniwa, and Applicant's admitted prior art. Thus, the issue is whether these references in combination disclose or suggest all of the limitations of the claims so as to establish a *prima facie* case of obviousness.

**Grouping of Claims (37 C.F.R. § 1.192(c)(7))**

1. In regard to Issue No. 1 above, in order to make the appeal process as efficient as possible and for the purposes of this Appeal only, Appellant agrees to have the claims of Issue No. 1 considered in three groups, consisting of:

a first group, Group I, consisting of Claim 1;

a second group, Group II, consisting of Claims 11-15 and 19, which stand or fall together; and

a third group, Group III, consisting of Claims 16 and 20, which stand or fall together.

2. In regard to Issue No. 2 above, in order to make the appeal process as efficient as possible and for the purposes of this Appeal only, Appellant agrees to have the claims of Issue No. 2 considered in one group consisting of claims 1 and 6-10, which stand or fall together.

3. In regard to Issue No. 3 above, in order to make the appeal process as efficient as possible and for the purposes of this Appeal only, Appellant agrees to have the

claims of Issue No. 3 considered in one group consisting of claims 2-5 and 18, which stand or fall together.

4. In regard to Issue No. 4 above, in order to make the appeal process as efficient as possible and for the purposes of this Appeal only, Appellant agrees to have the claims of Issue No. 4 considered in two groups, consisting of:

a first group, Group I, consisting of Claims 11, 15, and 19, which stand or fall together; and

a second group, Group II, consisting of Claims 16 and 20, which stand or fall together.

5. In regard to Issue No. 5 above, in order to make the appeal process as efficient as possible and for the purposes of this Appeal only, Appellant agrees to have the claims of Issue No. 5 considered in one group consisting of claims 12-14, which stand or fall together.

#### **ARGUMENT (37 C.F.R. § 1.192(C)(8))**

As this Appeal concerns rejections under 35 U.S.C. §112 and §103, this portion includes arguments pursuant to 37 C.F.R. § 1.192(c)(8)(i) and 37 C.F.R. § 1.192(c)(8)(iv), respectively.

A. Issue No. 1: 35 U.S.C. §112 Enablement of Claims 1, 11-16, 19, and 20

According to MPEP 2164.08, “the specification must teach those skilled in the art how to make and use the full scope of the claimed invention without ‘undue experimentation’”. The “scope of enablement must only bear a ‘reasonable correlation’ to the scope of the claims”. “One does not look to the claims but to the specification to find out how to practice the claimed invention”. MPEP 2164.08 (citations omitted.)

Group I:

The Advisory Action dated September 3, 2002 incorrectly asserts that page 18, lines 7-10 and 14-19 of the specification suggest that claim 1 should be rejected under 35 U.S.C. §112, paragraph 1, because “a server 6 just select a printer based on stored jobs in hard disk 206 of the server, not a memory of the printer, and printer status”. As discussed previously, according to the specification and as claimed in claim 1 of the present application, an input print job is routed to a particular printer based upon a **status of the printer**, which is determined based on information of print jobs previously stored in the memory, RAM 104, of the printer and **not** the memory of the hard drive 206. Thus, the status of the memory is determined based on the job data registered by the job registration server 6 in job data area C of the RAM 104 of each printer.

Specifically with respect to enablement of that which is claimed in claim 1, claim 1 is directed to a device for selecting a network-connected image forming apparatus (a printer) from a plurality of network-connected image forming apparatuses, where each of at least two of the plurality of image forming apparatuses has a specific mode. According to claim 1, the device comprises:

- a controller for selecting one of the plurality of image forming apparatuses connected with the network,
  - wherein when an input job has a specific mode, said controller selects an image forming apparatus which has a specific mode and which stores a prior job having the specific mode of the input job at the time the selection is made, and
  - said controller for registering the input job in the selected image forming apparatus.

With respect to enablement of each element of claim 1:

- a controller (job registration server 6) for selecting one of the plurality of image forming apparatuses (printers) connected with the network (N),

- wherein when an input job has a specific mode, (illustrated in Fig. 8: Yes at #2-2 and described on page 19, line 23 – page 20, line 6 of the specification), said controller (6)

selects an image forming apparatus which has a specific mode and which stores a prior job having the specific mode of the input job at the time the selection is made, (illustrated in Fig. 8: #2-3, Yes at #2-4; and described on page 19, line 23 – page 20, line 9 of the specification), and

said controller (6) for registering the input job in the selected image forming apparatus (illustrated in Fig. 8: #2-9; and described on page 9, lines 21-24 of the specification).

Therefore, all limitations of claim 1 are fully disclosed and clearly described in the specification and illustrated in the Figures such that one skilled in the art to which it pertains could make and/or use the invention. Therefore, the specification is enabling with respect to claim 1.

Accordingly, it is respectfully requested that the rejection of claim 1 under 35 U.S.C. §112 be reconsidered and withdrawn.

Group II:

With respect to claims 11-15, and 19, claim 11 is an independent claim from which claims 12-15 and 19 depend either directly or indirectly.

In reference to claim 11, the claimed invention is directed to an image forming apparatus connected with a job management device through a network, said image forming apparatus comprising:

- a memory for storing jobs;
- discriminating means for discriminating whether any of the jobs stored in the memory has a specific mode in order to determine a status of the memory; and
- reporting means for reporting the status of the memory to the job management device such that the job management device can determine whether or not to route an input job having a specific mode to the image forming apparatus based on whether any of the jobs stored in the memory has the specific mode of the input job.

With respect to enablement of each element of claim 11:

An image forming apparatus (printer) connected with a job management device (job registration server 6) through a network (N), comprising:

a memory (system RAM 104) for storing jobs; (see Fig. 4 as described on page 14, lines 8-25 of the specification);

discriminating means (CPU 102) for discriminating whether any of the jobs stored in the memory has a specific mode in order to determine a status of the memory; and

reporting means (network controller 101) for reporting the status of the memory to the job management device (6) such that the job management device (6) can determine whether or not to route an input job having a specific mode to the image forming apparatus based on whether any of the jobs stored in the memory has the specific mode of the input job (as illustrated in Fig. 3 and described on page 13, lines 3-7 of the specification, network controller 101 controls interactions between devices).

Thus, all elements of claim 11 are supported by the specification in a manner such that one skilled in the art would find the disclosure enabling of claim 11.

Claims 12-15 and 19 depend either directly or indirectly from enabled independent claim 11. “With respect to dependent claims, 35 U.S.C. 112, fourth paragraph, ... states that ‘a claim in a dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers’ and requires the dependent claim to further limit the subject matter claimed”. MPEP 2164.08 (8<sup>th</sup> Edition, 2001). Thus, claim 11 is enabled.

Claim 12 depends directly from enabled independent claim 11. Reference to the specific limitation of claim 12, “the specific mode requiring temporary stoppage of the image forming apparatus”, can be found on page 15, lines 6-9. Thus, claim 12 is enabled.

Claim 13 depends indirectly from enabled independent claim 11 through claim 12. Reference to the specific limitation of claim 13, “the specific mode requiring a selected

image forming apparatus having a manual paper feed mode”, can be found on page 15, lines 9-14. Thus, claim 13 is enabled.

Claim 14 depends indirectly from enabled independent claim 11 through claim 12. Reference to the specific limitation of claim 14, “wherein the specific mode requiring changing paper positioned in the selected image forming apparatus”, can be found on page 15, lines 6-14. Thus, claim 14 is enabled.

Claim 15 depends indirectly from enabled independent claim 11 through claim 12. Reference to the specific limitation of claim 15, further comprising “image forming means for forming images on recording medium in order of the sequence of jobs stored in memory”, can be found on page 13, lines 8-12 and page 14, lines 12-14. Thus, claim 15 is enabled.

Claim 19 depends directly from enabled independent claim 11. Reference to the specific limitation of claim 19, “wherein the specific mode of the prior job stored in the image forming apparatus is a manual feeding mode”, can be found on page 15, lines 6-14. Thus, claim 19 is enabled.

Therefore, claims 11-15 and 19 are enabled by the specification.

Accordingly, it is respectfully requested that the rejection of claims 11-15 and 19 under 35 U.S.C. §112 be reconsidered and withdrawn.

Group III:

With regard to claim 16, the claimed invention is directed to:

A network system comprising:  
a network for transmitting data;  
a plurality of image forming apparatuses connected with said network and each of the plurality of image forming apparatuses having a memory for storing jobs;

discriminating means for discriminating a status of the memory based on whether the memory stores a job having a specific mode;  
reporting means for reporting to the network the status of the memory of any of the plurality of image forming apparatuses whose memory stores a job having a specific mode; and  
a control device for selecting one of said plurality of image forming apparatuses connected with the network and for registering an input job in the selected image forming apparatus,  
wherein when said input job has a specific mode, said control device selects an image forming apparatus whose memory stores a job having the specific mode of the input job.

With respect to enablement of each element of claim 16:

A network system (illustrated in Fig. 1) comprising:

a network (N) for transmitting data;

a plurality of image forming apparatuses (plurality of printers) connected with said network (N) (illustrated in Fig. 1 and described on page 9, lines 18-21 of the specification) and each of the plurality of image forming apparatuses having a memory (system RAM 104) for storing jobs;

discriminating means (CPU 102) for discriminating a status of the memory based on whether the memory stores a job having a specific mode;

reporting means (network controller 101) for reporting to the network the status of the memory of any of the plurality of image forming apparatuses whose memory stores a job having a specific mode (as described on page 13, lines 3-7 and illustrated in Fig. 3; network controller 101 controls interactions between devices); and

a control device (job registration server 6) for selecting one of said plurality of image forming apparatuses connected with the network (N) and for registering an input job in the selected image forming apparatus,

wherein when said input job has a specific mode (Fig. 8: Yes at #2-2 and page 19, line 23- page 20, line 6 of the specification), the control device selects an image forming apparatus whose memory stores a job having the specific mode of the input job (Fig. 8: #2-9, and page 9, lines 21-24 of the specification).

Thus, all elements of claim 16 are supported by the specification in a manner such that one skilled in the art would find the disclosure enabling of claim 16.

Claim 20 depends directly from enabled claim 16. Reference to the specific limitation of claim 20, “wherein the specific mode of the prior job stored in the image forming apparatus is a manual feeding mode”, can be found on page 15, lines 6-14. Thus, claim 20 is also enabled.

Accordingly, it is respectfully requested that the rejection of claims 16 and 20 under 35 U.S.C. §112 be reconsidered and withdrawn.

B. Issue No. 2: 35 U.S.C. §103(a) Obviousness of Claims 1 and 6-10

Claims 1 and 6-10 were rejected based on a combination of Hower, Shibusawa, and Maniwa.

Hower discloses or suggests a printing arrangement having a printer bank with a plurality of printers each having a respective printer profile containing printer properties. Printer profiles and the print queues are stored in server 50. The printing arrangement includes a user input section for inputting print job selections. The arrangement of Hower selects one of the plurality of printers for printing an input job based on a comparison of the user input print job selections and the printer profile properties of the plurality of printers. See Abstract of Hower.

Shibusawa discloses or suggests a printer managing apparatus which pools a plurality of printers into groups based on printer characteristics including: PCL and PS as PDL capability; paper size capability; and finishing capabilities, such as stapling, collating, etc. When an input job request is submitted by the user, the user inputs print requirements such as paper size, and finishing requirements. These print requirements are compared with the printer characteristics of the pooled printer groups to determine which of the



pooled printers is selected for printing. (See Figs. 6-9: Col. 6, line 58- Col. 8, line 10) of Shibusawa.

Maniwa discloses or suggests a server machine which time-sequentially queues for printing print jobs having print profiles, and which notifies the user of a printer error. A printer controller transfers the print jobs to an appropriate printer and makes the copier execute the print job. The printer controller checks to see if a print profile was generated by the user for the input print job and whether or not the printer profile for the input print job is different from a print profile established for the same user (i.e., a standard printer profile set up condition that has been established by a user as a default print profile). If the print profile is different than the standard printer profile conditions, the print profile for the input print job overrides the standard print profile. If no standard is provided or if no print profile is provided by the user, then only the print data is sent for printing. (See Col. 18, lines 4 – Col. 19, line 10.) of Maniwa

Claims 6-10 depend either directly or indirectly from independent claim 1.

Claim 1 requires that “when an input job has a specific mode, said controller selects an image forming apparatus which has a specific mode and which stores a prior job having the specific mode of the input job at the time the selection is made, and said controller for registering the input job in the selected image forming apparatus”.

None of the above cited references either alone or in any combination disclose or suggest that a controller select a printer based on whether or not a printer stores a prior job having the specific mode of the input job. The MPEP correctly teaches that to “establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” MPEP 2143.03 (8<sup>th</sup> Ed. 2001) (citations omitted).

In summary of the above discussions, Appellant respectfully submits that the cited references do not disclose or suggest, either singly or in any combination, all of the claim

limitations of claim 1. Therefore, claim 1 is not obvious with respect to any of the above cited references either singly or in any combination.

“If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious”. MPEP 2143.03 (8<sup>th</sup> Edition, 2001) (citation omitted). Therefore, claims 12-15 and 19 are also non-obvious with respect to the cited references. As claims 6-10 depend either directly or indirectly from non-obvious independent claim 1, they too are not obvious with respect to the above cited references either singly or in any combination.

Accordingly, it is respectfully requested that the rejection of claims 12-15 and 19 under 35 U.S.C. 103(a), be reconsidered and withdrawn.

C. Issue No. 3: 35 U.S.C. §103(a) Obviousness of Claims 2-5 and 18

Claims 1 and 6-10 were rejected based on a combination of Hower, Shibusawa, and art cited by the Applicant.

Claims 2-5 and 18 depend either directly or indirectly from independent claim 1. Claim 1 requires that “when an input job has a specific mode, said controller selects an image forming apparatus which has a specific mode and which stores a prior job having the specific mode of the input job at the time the selection is made, and said controller for registering the input job in the selected image forming apparatus”.

None of the art cited by the Applicant in the Information Disclosure Statement disclose or suggest that which is claimed in claim 1.

As discussed previously, neither Hower or Shibusawa, either alone or in combination, disclose or suggest that a controller select a printer based on whether or not a printer stores a prior job having the specific mode of the input job. The MPEP correctly teaches that to “establish *prima facie* obviousness of a claimed invention, all the claim

limitations must be taught or suggested by the prior art.” MPEP 2143.03 (8<sup>th</sup> Ed. 2001) (citations omitted).

In summary of the above discussions, Appellant respectfully submits that the cited references do not disclose or suggest, either singly or in any combination, all of the claim limitations of claim 1. Therefore, claim 1 is not obvious with respect to any of the above cited references either singly or in any combination.

“If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious”. MPEP 2143.03 (8<sup>th</sup> Edition, 2001) (citation omitted). As claims 2-5 and 18 depend either directly or indirectly from non-obvious independent claim 1, they too are not obvious with respect to the above cited references, either singly or in any combination.

Accordingly, it is respectfully requested that the rejection of claims 2-5, and 18 under 35 U.S.C. 103(a), be reconsidered and withdrawn.

D. Issue No. 4: 35 U.S.C. §103(a) Obviousness of Claims 11, 15, 16, 19, and 20.

Claims 11, 15, 16, 19, and 20 were rejected based on a combination of Hower and Maniwa.

Group I:

Claims 15 and 19 depend either directly or indirectly from independent claim 11.

Claim 11 is directed to an image forming apparatus connected with a job management device (job registration server 6) through a network (N).

The image forming apparatus comprises:

a memory for storing jobs (RAM 104);

discriminating means (CPU 102) for discriminating whether any of the jobs stored

in the memory has a specific mode in order to determine a status of the memory; and  
reporting means (network controller 101) for reporting the status of the memory to the job management device (job registration server 6) such that the job management device can determine whether or not to route an input job having a specific mode to the image forming apparatus based on whether any of the jobs stored in the memory has the specific mode of the input job.

As discussed previously, none of the cited references discloses or suggests discriminating whether any of the jobs stored in the memory of the printer is a specific mode job or determining whether or not to route an input job having a specific mode to a printer based on whether that printer stores other jobs having the specific mode of the input job. Therefore, claim 11 is not obvious with respect to the cited prior art references, either singly or in any combination.

“If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious”. MPEP 2143.03 (8<sup>th</sup> Edition, 2001) (citation omitted). As claims 15 and 19 depend either directly or indirectly from non-obvious independent claim 11, they too are not obvious with respect to the above cited references, either singly or in any combination.

Group II:

Claim 16 is an independent claim. Claim 20 depends directly therefrom.

Claim 16 is directed to a network system comprising:

a network (N) for transmitting data; a plurality of image forming apparatuses (e.g., printers 3-5 of Fig. 1) connected with said network and each of the plurality of image forming apparatuses having a memory (RAM 104) for storing jobs;

discriminating means (CPU 102) for discriminating a status of the memory based on whether the memory stores a job having a specific mode;

reporting means (network controller 101) for reporting to the network the status of

the memory of any of the plurality of image forming apparatuses whose memory stores a job having a specific mode; and

a control device (job registration server 6) for selecting one of said plurality of image forming apparatuses connected with the network and for registering an input job in the selected image forming apparatus, wherein when said input job has a specific mode, said control device selects an image forming apparatus whose memory stores a job having the specific mode of the input job.

As discussed previously, none of the cited references discloses or suggests discriminating whether any of the jobs stored in the memory of the printer is a specific mode job or selecting a printer to register a specific mode input job based on whether any of the network connected printers stores other jobs having the specific mode of the input job. Therefore, claim 16 is not obvious with respect to the cited prior art references, either singly or in any combination.

“If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious”. MPEP 2143.03 (8<sup>th</sup> Edition, 2001) (citation omitted). As claim 20 depends directly from non-obvious independent claim 16, it too is not obvious with respect to the above cited references, either singly or in any combination.

Accordingly, it is respectfully requested that the rejection of claims 11, 15, 16, 19, and 20 under 35 U.S.C. 103(a), be reconsidered and withdrawn.

E. Issue No. 5: 35 U.S.C. §103(a) Obviousness of Claims 12-14

Claims 12 - 14 were rejected based on a combination of Hower, Maniwa, and Applicant's admitted prior art.

Claims 12-14 depend either directly or indirectly from claim 11.

Claim 11 is directed to an image forming apparatus connected with a job

management device (job registration server 6) through a network (N). The image forming apparatus comprises:

a memory for storing jobs (RAM 104); discriminating means (CPU 102) for discriminating whether any of the jobs stored in the memory has a specific mode in order to determine a status of the memory; and

reporting means (network controller 101) for reporting the status of the memory to the job management device (job registration server 6) such that the job management device can determine whether or not to route an input job having a specific mode to the image forming apparatus based on whether any of the jobs stored in the memory has the specific mode of the input job.

As discussed previously, none of the cited references discloses or suggests discriminating whether any of the jobs stored in the memory of the printer is a specific mode job or determining whether or not to route an input job having a specific mode to a printer based on whether that printer stores other jobs having the specific mode of the input job. Therefore, claim 11 is not obvious with respect to the cited prior art references, either singly or in any combination.

“If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious”. MPEP 2143.03 (8<sup>th</sup> Edition, 2001) (citation omitted). As claims 12-14 depend either directly or indirectly from non-obvious independent claim 11, they too are not obvious with respect to the above cited references, either singly or in any combination.

Accordingly, it is respectfully requested that the rejection of claims 12-14 under 35 U.S.C. 103(a) be reconsidered and withdrawn.

## CONCLUSION

Appellant hereby states that claims 1-16 and 18-20 are described in the specification and Figures in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Additionally, Appellant seeks to claim a device for selecting a network-connected image forming apparatus from a plurality of image forming apparatuses wherein when an input job has a specific mode, said controller selects an image forming apparatus which has a specific mode and which stores a prior job having the specific mode of the input job at the time the selection is made, and said controller for registering the input job in the selected image forming apparatus. Importantly, the specific limitations of Claims 1-10 and 18 are not shown, taught, or suggested by the references of record, either singly or in combination.

Further, Appellant seeks to claim an image forming apparatus having a discriminating means for discriminating whether any of the jobs stored in the memory has a specific mode to determine as status of the memory, and reporting the status of the memory to a job management device which determines whether or not to route an input job having a specific mode to the image forming apparatus based on the status of the memory. Importantly, the specific limitations of Claims 11-15, and 19 are not shown, taught, or suggested by the references of record, either singly or in combination.

Still further, Appellant seeks to claim a network system comprising in part: a plurality of image forming apparatuses each having a memory, discriminating means for discriminating a status of the memory of each of the image forming apparatuses based on whether the image forming apparatus stores a job having a specific mode, a control device for selecting one of the plurality of image forming apparatuses to register an input job, wherein when the input job has a specific mode, the control device selects the image forming apparatus whose memory stores a job having the specific mode of the input job.

Importantly, the specific limitations of Claims 16 and 20 are not shown, taught, or suggested by the references of record, either singly or in combination.

In view of the foregoing, a *prima facie* case of obviousness has not been established for any one of Claims 1-16 and 18-20. Accordingly, the Appellant respectfully requests the Board of Patent Appeals and Interferences to reverse the Examiner's rejections of all of the appealed claims to facilitate the subsequent allowance of this Application.

Respectfully submitted,

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**Appendix A (37 C.F.R. § 1.192(c)(9))**

1. A device for selecting a network-connected image forming apparatus from a plurality of network-connected image forming apparatuses, where each of at least two of the plurality of image forming apparatuses has a specific mode, the device comprising:  
a controller for selecting one of the plurality of image forming apparatuses connected with the network,  
wherein when an input job has a specific mode, said controller selects an image forming apparatus which has a specific mode and which stores a prior job having the specific mode of the input job at the time the selection is made, and  
said controller for registering the input job in the selected image forming apparatus.
2. A device according to claim 1, wherein said selected image forming apparatus is adapted to form images of a job having the specific mode which requires temporarily stopping the selected image forming apparatus.
3. A device according to claim 2, wherein said selected image forming apparatus has a manual paper feeding specific mode.
4. A device according to claim 2, wherein said selected image forming apparatus is adapted to form an image of a job possessing the specific mode requiring changing paper positioned in the selected image forming apparatus.
5. A device according to claim 2, further comprising:  
notice means for notifying a user to place an indicated type of paper in the selected image forming apparatus.
6. A device according to claim 1, wherein said controller selects one of the plurality of image forming apparatuses not storing a job of the specific mode when the input job does not have the specific mode.

7. A device according to claim 1,  
wherein each of said plurality of image forming apparatuses has a memory for storing jobs, and  
wherein said controller selects an image forming apparatus not storing a job in the memory of the selected image forming apparatus when an image forming apparatus storing a job of the specific mode cannot be referenced.

8. A device according to claim 7, wherein said controller selects an image forming apparatus having a greater remaining memory than any other of the plurality of image forming apparatuses when an image forming apparatus not having a job stored in memory cannot be referenced.

9. A device according to claim 1,  
wherein when said input job has the specific mode where the specific mode indicates a requirement for a specific size paper, said controller receives information from the plurality of image forming apparatuses regarding a size of paper in each of the image forming apparatuses, and  
wherein, when no image forming apparatus contains the specific size paper, said controller selects as a selected image forming apparatus an image forming apparatus storing a job having a different specific mode and said controller registers said input job in the selected image forming apparatus.

10. A device according to claim 9, further comprising:  
notice means for notifying a user to place an indicated type of paper in the selected image forming apparatus.

11. An image forming apparatus connected with a job management device through a network, said image forming apparatus comprising:  
a memory for storing jobs;  
discriminating means for discriminating whether any of the jobs stored in the memory has a specific mode in order to determine a status of the memory; and

reporting means for reporting the status of the memory to the job management device such that the job management device can determine whether or not to route an input job having a specific mode to the image forming apparatus based on whether any of the jobs stored in the memory has the specific mode of the input job.

12. An image forming apparatus according to claim 11, wherein said memory stores a job having the specific mode requiring temporary stoppage of the image forming apparatus.

13. An image forming apparatus according to claim 12, wherein said memory stores a job having the specific mode requiring a selected image forming apparatus having a manual paper feeding mode.

14. An image forming apparatus according to claim 12, wherein said memory stores a job having the specific mode requiring changing paper positioned in the selected image forming apparatus.

15. An image forming apparatus according to claim 12, further comprising:  
image forming means for forming images on recording medium in order of the sequence of jobs stored in said memory.

16. A network system comprising:  
a network for transmitting data;  
a plurality of image forming apparatuses connected with said network and each of the plurality of image forming apparatuses having a memory for storing jobs;  
discriminating means for discriminating a status of the memory based on whether the memory stores a job having a specific mode;  
reporting means for reporting to the network the status of the memory of any of the plurality of image forming apparatuses whose memory stores a job having a specific mode;  
and  
a control device for selecting one of said plurality of image forming apparatuses

connected with the network and for registering an input job in the selected image forming apparatus,

wherein when said input job has a specific mode, said control device selects an image forming apparatus whose memory stores a job having the specific mode of the input job.

18. A device according to claim 1, wherein the specific mode of the prior job stored in the image forming apparatus is a manual paper feeding mode.

19. An image forming apparatus according to claim 11, wherein the specific mode of the prior job stored in the image forming apparatus is a manual paper feeding mode.

20. A network system according to claim 16, wherein the specific mode of the prior job stored in the image forming apparatus is a manual paper feeding mode.